

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE
(Rev. 2-32) PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.
1341-3SERIAL NO.
10/797,747INFORMATION DISCLOSURE
STATEMENT BY APPLICANTAPPLICANT
Long, et al.CONFIRMATION NO.
3427

(Use several sheets if necessary)

FILING DATE
March 10, 2004GROUP
1617

U.S. PATENT PUBLICATIONS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
GY	2002/0037 312 A1	03/28/02	Brown et al.			
↓	2003/0175 332A1	09/18/03	Brown et al.			

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
GY	3,194,732	07/13/65	Neuhauser			
↓	4,141,973	02/27/79	Balazs			
↓	4,517,295	05/14/85	Bracke et al.			
↓	4,713,448	12/15/87	Balazs et al.			
↓	4,716,224	12/29/87	Sakurai et al.			
↓	4,784,990	11/15/88	Nimrod et al.			
↓	4,879,375	11/07/89	Cullis-Hill			
↓	4,992,264	02/12/91	Diot et al.			
↓	5,079,236	01/07/92	Drizen et al.			
↓	5,099,013	03/24/92	Balazs et al.			
↓	5,141,964	08/25/92	Noel			
↓	5,166,331	11/24/92	Della Valle et al.			
↓	5,316,926	05/31/94	Brown et al.			
↓	5,411,874	05/02/95	Ellwood et al.			

EXAMINER

Gina Yu

DATE CONSIDERED

8/9/07

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication with applicant.

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE
(Rev. 2-32) PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO.
1341-3

SERIAL NO.
10/797,747

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

APPLICANT
Long, et al.

CONFIRMATION NO.
3427

(Use several sheets if necessary)

FILING DATE
March 10, 2004

GROUP
1617

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
GY	5,415,875	05/16/95	Kakoki et al.			
	5,538,740	07/23/96	Abad			
	5,460,832	10/24/95	Yamaguchi et al.			
	5,559,104	09/24/96	Romeo et al.			
	5,646,129	07/08/97	Callegaro et al.			
	5,783,691	07/21/98	Malson et al.			
	5,925,626	07/20/99	Della Valle et al.			
	5,869,063	02/09/99	Lezdey et al.			
	5,928,659	07/27/99	Moy			
	6,030,958	02/29/00	Burns et al.			
	6,090,596	07/18/00	Stahl			
	6,194,392 B1	02/27/01	Falk et al.			
	6,217,913 B1	04/17/01	Mohammadi			
	6,218,373 B1	04/17/01	Falk et al.			
	6,255,295 B1	07/03/01	Henderson et al.			
	6,337,389 B1	01/08/02	Wolfenbarger, Jr.			
	6,399,083 B1	06/04/02	Pillai et al.			
	6,498,204 B1	12/24/02	Ubara			

EXAMINER

Gina Yu

DATE CONSIDERED

8/9/07

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication with applicant.

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE (Rev. 2-32) PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	ATTY. DOCKET NO. 1341-3	SERIAL NO. 10/797,747
	APPLICANT Long, et al.	CONFIRMATION NO. 3427
	FILING DATE March 10, 2004	GROUP 1617

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION	
							YES	NO
GY		JP1043502	02/15/89	Japan				

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

GY			Nakano T., Ikawa NI, Ozimek., "Chemical composition of chicken eggshell and shell membranes," <i>Poult Sci.</i> 2003, 82(3):510-4 [Abstract].
			Dupoirieux L., Pourquoi D., Picot MC, Neves M., "Comparative study of three different membranes for guided bone regeneration of rat cranial defects," <i>Int J Oral Maxillofac Surg</i> 2001, 30(1):58-62 [Abstract].
			Hincke MT, Gautron J., Panheleux M., Garcia-Ruiz J., McKee MD, Nys Y., "Identification and localization of lysozyme as a component of eggshell membranes and eggshell matrix," <i>Matrix Biol</i> 2000, 19(5):443-53 [Abstract].
			Dupoirieux L., Neves M., Pourquoi D., "Comparison of pericranium and eggshell as space fillers used in combination with guided bone regeneration: an experimental study," <i>J Oral Maxillofac Surg</i> 2000, 58(1):40-6 [Abstract].
			Arias JL, Nakamura O, Fernandez MS, Wu JJ, Knigge P, Eyre DR, Caplan AI, "Role of type X collagen on experimental mineralization of eggshell membranes," <i>Connect Tissue Res</i> 1997, 36(1):21-33.
			Arias JL, Fernandez MS, Dennis JE, Caplan AI, "Collagens of the chicken eggshell membrane," <i>Connect Tissue Res</i> 1991, 26(1-2):37-45 [Abstract].
			Starcher BC, King GS, "The presence of desmosine and isodesmosine in eggshell membrane protein," <i>Connect Tissue Res</i> 1980, 8(1):53-5 [Abstract].
			Osuoji CI, "Acid glycosaminoglycan of eggshell membranes," <i>Biochim Biophys Acta</i> 1971, 244(2):481-3.

EXAMINER

Gina Yu

DATE CONSIDERED

8/9/07

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication with applicant.

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE (Rev. 2-32) PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 1341-3	SERIAL NO. 10/797,747
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	APPLICANT Long, et al.	CONFIRMATION NO. 3427
(Use several sheets if necessary)	FILING DATE March 10, 2004	GROUP 1617

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

GY		Gautron J, Hincke MT, Panheleux M, Garcia-Ruiz JM, Boldicke T, Nys Y, "Ovotransferrin is a matrix protein of the hen eggshell membranes and basal calcified layer," <i>Connect Tissue Res</i> 2001, 42(4):255-67 [Abstract].
		Akagawa M, Wako Y, Suyama K, "Lysyl oxidase coupled with catalase in egg shell membrane," <i>Biochim Biophys Acta</i> 1999, 1434(1):151-60 [Abstract].
		Suyama K, Fukazawa Y, Umetsu Y, "A new biomaterial, hen egg shell membrane, to eliminate heavy metal ion from their dilute waste solution," <i>Appl Biochem Biotechnol</i> 1994, 45-46:871-9[Abstract].
		Arias JL, Fernandez MS, Dennis JE, Caplan AL, "The fabrication and collagenous substructure of the eggshell membrane in the isthmus of the hen oviduct," <i>Matrix</i> 1991, 11(5):313-20[Abstract].
		U.S. Department of Agriculture, Avian Physiology Laboratory, Beltsville, Maryland 20705, "Levels of calcium and soluble collagen in turkey egg shell membranes," <i>Comp Biochem Physiol A</i> 1988, 90(3):421-4[Abstract].
		Leach RM Jr, Rucker RB, Van Dyke GP, "Egg shell membrane protein: a nonelastin desmosine/isodesmosine-containing protein," <i>Arch Biochem Biophys</i> 1981, 207(2):353-9[Abstract].
		Crombie G, Snider R, Faris B, Franzblau C, "Lysine-derived cross-links in the egg shell membrane," <i>Biochim Biophys Acta</i> 1981, 640(1):365-7[Abstract].
		Harris ED, Blount JE, Leach RM Jr., "Localization of lysyl oxidase in hen oviduct: implications in egg shell membrane formation and composition," <i>Science</i> 1980, 208(4439):55-6[Abstract].
		Stevenson IL, "The removal of egg shell membranes by enzyme treatment to facilitate the study of shell microstructure," <i>Poult Sci</i> 1980, 59(8):1959-60[Abstract].
↓		Picard J, Paul-Gardais A, Vedel M., "[Sulfated glycoproteins from egg shell membranes and hen oviduct. Isolation and characterization of sulfated glycopeptides (author's transl)]," <i>Biochim Biophys Acta</i> 1973, 320(2):427-41[Abstract].

EXAMINER

Gina Yu

DATE CONSIDERED

8/9/07

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication with applicant.

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE (Rev. 2-32) PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 1341-3	SERIAL NO. 10/797,747
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	APPLICANT Long, et al.	CONFIRMATION NO. 3427
(Use several sheets if necessary)	FILING DATE March 10, 2004	GROUP 1617

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
64			Robinson DS, King NR, "Mucopolysaccharides of an avian egg shell membrane," <i>JR Microsc Soc</i> 1968, 88(1):13-22[Abstract].
			Powrie William, Nakai S., "The Chemistry of eggs and egg products," <i>Egg Science and Technology</i> 1990, 97-139.
			Wu Tzong-Ming, Rodriguez Juan Pablo, Fink David, Carrino David, Blackwell John, Caplan Arnold, Heuer Arthur, "Crystallization Studies on Avian Eggshell Membranes: Implications for the Molecular Factors Controlling Eggshell Formation," <i>Matrix Biology</i> 1995, 14:507-513.
			Wong Mitchell, Hendrix Mary J.C., Mark Klaus von der, Little Charles, Stern Robert, "Collagen in the Egg Shell Membrane of the Hen," <i>Developmental Biology</i> 1984 104:8-36.
			Gautron, Bain M., Solomon S, NYS Y., "Soluble matrix of hen's eggshell extracts changes <i>in vitro</i> the rate of calcium carbonate precipitation and crystal morphology," <i>British Poultry Science</i> 1996 37, 853-866.
			Tomihata Kenji, Ikada Yoshito, "Crosslinking of hyaluronic acid with water-soluble carbodiimide," <i>J Biomed Mater Res</i> , 1997, 37, 243-251.
			Carrino David, Dennis James, Wu Tzong-Ming, Arias Jose, Fernandez Maria, Rodriguez Juan, Fink David, Heuer Arthur, Caplan Arnold, "The Avian Eggshell Extracellular Matrix as a Model for Biomineralization," <i>Connective Tissue Research</i> , 1996, 35(1-4), 325-329.
↓			Hincke M.T., Tsang C.P.W., Courtney M, Hill V, Narbaitz R., "Purification and Immunochemistry of a Soluble Matrix Protein of the Chicken Eggshell," <i>Calcif Tissue Int</i> , 1995, 56:578-583.

EXAMINER

Gina Yu

DATE CONSIDERED

2/9/07

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication with applicant.

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE (Rev. 2-32) PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 1341-3	SERIAL NO. 10/797,747
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	APPLICANT Long, et al.	CONFIRMATION NO. 3427
(Use several sheets if necessary)	FILING DATE March 10, 2004	GROUP 1617

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

GY		Baker, J.R. et al., "A Study of the Organic Material of Hen's-Egg Shell", <i>Biochemical Journal</i> , 1962, 82, 352-361.
		"Egg Science and Technology", Eds. W.J. Stadelman and O.J. Cotterill, Food Products Press, a subsidiary of The Haworth Press, Bingham, NY, 1990.
		Britton, W.M. and Hale, K.K., "Amino Acid Analysis of Shell Membranes of Eggs from Young and Old Hens Varying in Shell Quality", <i>Poultry Science</i> , 56:865-871, 1977.
		Cifonelli, J.A., "The Colormetric Estimation of Uronic Acid", <i>Methodology of Connective Tissue Research</i> , ED:DA Hall, Joynson-Bruvvers Ltd., Oxford, 1976, Chapter 26, pp. 253-256.
		Armstrong, DC and Johns, MR, "Improved Molecular Weight Analysis of Streptococcal Hyaluronic Acid by Size Exclusion Chromatography" in <i>Biotechnology Techniques</i> .
		Fernandez, M.S., Araya, M., and Arias, JL, "Eggshells are Shaped by a Precise Spatio-Temporal Arrangement of Sequentially Deposited Macromolecules", <i>Matrix. Biol.</i> , 16:13-20, 1997.
		Takahashi, K., Shirai, K., Kitamura, M., Hattori, M., "Soluble Egg Shell Membrane Protein as a Regulating Material for Collagen Matrix Reconstruction", <i>Biosci. Biotechnology & Biochemistry</i> , 60:1299-1302, 1996.
		T.C. Laurent, "Structure of Hyaluronic Acid", <i>Chem. and Mol. Biol. of Intracellular Matrix</i> , Vol. 2, 1970, pp. 703-732.
		O.H. Lowry et al., "Protein Measurement with the Folin Phenol Reagent", <i>The Journal of Biological Chemistry</i> , Vol. 193 (1951) pp. 265-275.
V		W.D. Comper et al., "Physiological Function of Connective Tissue Polysaccharides" <i>Physiological Reviews</i> , Vol. 58, No. 1 (1978) pp. 255-315.

EXAMINER

Gina Yu

DATE CONSIDERED

8/9/07

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication with applicant.

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE (Rev. 2-32) PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	ATTY. DOCKET NO. 1341-3	SERIAL NO. 10/797,747
	APPLICANT Long, et al.	CONFIRMATION NO. 3427
	FILING DATE March 10, 2004	GROUP 1617

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

G4			K. Meyer, "Chemical Structure of Hyaluronic Acid", <i>Fed. Proceed</i> , Vol. 17 (1958) pp. 1075-1077.
↓			E.A. Balazs et al., "Hyaluronic Acid and Replacement of Vitreous and Aqueous Humor" <i>Mod. Probl. Ophthal.</i> , Vol. 10 (1972) pp. 3-21.
↓			U.B.G. Laurent, "Hyaluronate in Human Aqueous Humor", <i>Arch Ophthalmol.</i> , Vol. 101 (1983) pp. 129-130., Vol. 101 (1983) pp. 129-130.

191254_1

EXAMINER Gina Yu DATE CONSIDERED 8/9/07

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication with applicant.